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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DOAN, DUC T

ART UNIT

PAPER NUMBER

2188

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/698,093

Applicant(s)

WURZBURG, HENRY

Examiner

Duc T. Doan

Art Unit

2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 1-43 have been presented for examination in this application. In response to the last Office Action, none of the claims were canceled, claim 44 was added. As a result, claims 1-44 are now pending in this application.

Claims 1-44 are rejected.

Applicant's arguments filed 2/6/06 have been fully considered but they are not persuasive. Therefore, the rejections from the previous office action are respectfully maintained, with changes as needed to address the amendments.

All rejections and objections not explicitly repeated below are withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

A person shall be entitled to a patent unless -

(a) the invention was known or used by other's in this country or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-2,4,10-12,16-18,24-35,38-44 rejected under 35 U.S.C. 102 (e) as being anticipated by Piau (US Pub 2004/0049627); (evidentiary reference: Blood et al (US Pub 2003/0110351)).

As for claim 1, Piau describes a flash-memory card-reader system comprising: a hard disk controller interface (Fig 2: # 204 IDE interface); a buffer coupled to the hard disk controller interface (Fig 2: #214); a processing unit coupled to the buffer (Fig 2: #216); and a flash-memory card-controller unit coupled to the buffer and to the processing unit (Fig 2: #220); wherein the hard disk controller interface is operable to communicate with a hard disk controller in a host system (Piau's page 2, paragraph 18) , wherein the hard disk controller interface is operable to receive incoming commands from the hard disk controller (Piau's page 2, paragraph 18); and wherein the processing unit is operable to translate the incoming commands to produce translated incoming commands usable by the flash-memory card-controller unit, wherein the processing unit is operable to provide the translated incoming commands to the flash-memory card-controller unit (Piau's pages 3,4 paragraph 29,30 describes converting original command into read write command of flash data blocks).

As for claim 2, Piau's wherein the hard disk controller comprises an IDE/ATA controller; and wherein the incoming commands are ATA commands (Fig 2: #203).

As for claim 4, Piau describes wherein the flash-memory card-controller unit is operable to access a flash memory card in response to the translated incoming commands (Piau's pages 3,4 paragraph 29,30 describes converting original command into read write command of flash data blocks).

As for claim 10, Piau describes wherein the flash-memory card-reader system appears as a HDD to the host system (Piau's Fig 2: #203,204 page 2 paragraph 20 describes the flash memory controller provides various disk drive interfaces such as ATA, IDE to communicate with host in both directions).

As for claim 11, the claim recites wherein the processing unit is operable to: translate outgoing commands issued by the flash-memory card-controller unit to produce translated outgoing commands; and provide the translated outgoing commands to the hard disk controller interface; and wherein the hard disk controller interface is operable to receive the translated outgoing commands and provide the translated outgoing commands to the hard disk controller in the host system. (Piau's Fig 2: #203,204 page 2 paragraph 20 describes the flash memory controller provides various disk drive interfaces such as ATA, IDE to communicate with host in both directions; pages 2,3 paragraph 22 describes the flash memory controller gathering configuration structures information and provide this information to the host using commands of interfaces such as ATA, IDE.

As for claim 12, the claim recites wherein the translated outgoing commands comprise ATA commands. The claim rejected base on the same rationale as in the rejection of claim 11.

Claims 16,28,31,38 rejected based on the same rationale as in the rejection of claim 1.

Claims 17,32 rejected based on the same rationale as in the rejection of claim 2.

Claim 18 rejected based on the same rationale as in the rejection of claim 4.

Claim 20 rejected based on the same rationale as in the rejection of claim 6.

Claims 24,29 rejected based on the same rationale as in the rejection of claim 10.

Claims 25,30 rejected based on the same rationale as in the rejection of claim 11.

Claims 26,39 rejected based on the same rationale as in the rejection of claim 12.

As for claims 33-35, the claims recite wherein a microprocessor coupled to the IDE controller (claim 33); wherein the microprocessor comprises an embedded microprocessor (claim 34); wherein the system comprises an embedded system (claim 35). Although Piau does not mention the embedded aspect of the claim. It has been known in the art that an embedded system with embedded processors and embedded disk controller devices are packaging together for example in a motherboard or backplane of a system. This teaching is evident in Blood et al (US Pub 2003/0110351, page 2, paragraphs 17-19), which is introduced here as an evidentiary reference.

As for claim 40, the claim rejected based on the same rationale as in the rejection of claim 33.

As for claims 41-42, wherein the outgoing commands issued by the flash-memory card-controller are in response to the translated incoming commands (claim 41); transferring data from the flash-memory card to a host system that comprises the IDE controller; wherein said accessing comprises obtaining the data from the flash-memory card; and wherein said transferring is performed in conjunction with said providing the translated outgoing commands to the IDE controller (claim 42). The claims rejected based on the same rationale as in the

rejection of claims 1-2. Day further describes the control circuits translating and transferring commands, status, data in both directions as shown in Fig 1, 2,3.

As for claim 43, the claim rejected base don the same rationale as in the rejection of claim 1. Piau's page 2 paragraph 21 describes the controller translate to compact flash command sequences to write and read, powering up, initializing flash memory devices.

As for claim 44, the claim recites wherein the flash-memory card-controller unit comprises one or more of: A Compact Flash controller; A Smart Media controller; a Memory Stick controllers; and a Secure Digital controller. Piau describes his controller #200 operates on a compact flash media (paragraph 17), therefore the flash memory sequencer #220 that sends flash's commands/data to flash devices #224 would operates with Compact Flash's commands/data protocols. Therefore, the flash memory sequencer #220 corresponds to the claim's Compact Flash controller.

Response to Arguments

Applicant's arguments in response to the last office action has been fully considered but they are not persuasive. Examiner respectfully traverses Applicant's arguments for the following reasons:

As to the remarks on pages 13-15 concerning the claim 1, Examiner maintains that Piau teaches the compact flash controller (Piau's Fig 2: #200) corresponds to the claim's flash-memory card reader system (specification's Fig 1: # 26 IDE-CR bridge; which is detailed further as Fig 2). Piau's compact flash controller, Fig 2: #200, includes a flash memory sequencer, Fig 2:

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#220; paragraph 18 corresponds to the claim's flash memory controller unit (specification's Fig 2: 110).

A) The function of applicant's inventive flash memory card reader or the IDE-CR bridge is to make flash memory cards/flash memory media to appear as hard-disk drives (specification's page 7 lines 1-23). Thus it's main function is to convert hard-disk drives commands and data transfer in IDE/ATA protocol into the flash media data transfer commands such as flash's read, write, erase commands that are sent out to the flash devices. Applicant's Fig 2 shows the IDE/ATA commands data are received by #102, converted to flash's commands/data and sending out to the flash devices #114 by the flash media controllers #110, #150. In a similar teaching, Piau describes that the device Fig 2: #200, receives commands/data via IDE/ATA interface, it converts to flash's commands/data and sending out to flash devices #222 by the flash memory sequencer #220. Thus clearly the flash memory sequencer must send out commands that are understood by flash memory devices #222. Piau's paragraph 5 teaches these commands are read, write, and block erase etc..

Thus Piau teaches all of the claim's limitations as described in above paragraphs.

B) Piau's paragraph 31 clearly teaches the advantage of the compact flash controller that can operate in various interfaces such as ATA, IDE, and PCIMA etc...

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

When responding to the office action, Applicant is advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist examiner to locate the appropriate paragraphs.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc T. Doan whose telephone number is 571-272-4171. The examiner can normally be reached on M-F 8:00 AM 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on 571-272-4210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mano Padmanabhan
3/31/01

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER